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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,284	11/21/2001	William Lo	MP0082	8191

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EXAMINER	
NGUYEN, TOAN D	

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2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/991,284	LO, WILLIAM	
	Examiner	Art Unit	
	Toan D. Nguyen	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 May 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-170* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,20-27,35-45,53-64,73-84,92-103,112-123,131-142 and 151-162* is/are rejected.

7)☒ Claim(s) *13-19,28-34,46-52,65-72,85-91,104-111,124-130,143-150 and 163-170* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 20, 35, 53, 73, 92, 112, 131, and 151 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joergensen (US 6,529,957) in view of Heaton (US 5,922,052).

For claim 1, Joergensen discloses method for increasing performance on a dedicated multi-speed Ethernet link segment, comprising:

a first device (figure 1, reference 20, col. 2 lines 22-25);

a second device (figure 2, reference 30, col. 2 lines 22-25); and

a network interface connector (NIC)(figure 1, reference 25) that communicates with said first device (figure 1, reference 20) and with said second device (figure 1, reference 30)(col. 2 lines 28-30).

However, Joergensen do not expressly disclose a network interface connector that communicates over said first media and over said second media, wherein said NIC provides autonegotiation between said first and second devices. In an analogous art, Heaton discloses a network interface connector (figure 2, reference 100, col. 4 lines 46-50) that communicates over said first media (figure 2, col. 5 lines 34-48) and over said

second media (col. 5 lines 49-58), wherein said NIC (figure 2, references 150 and 160) provides autonegotiation between said first and second devices (col. 5 lines 15-33).

One skilled in the art would have recognized the network interface connector, and would have applied Heaton's communication circuit 100 in Joergensen's NIC 25. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Heaton's fast Ethernet combination chaining of auto-negotiations for multiple physical layer capability in Joergensen's method for increasing performance on a dedicated multi-speed Ethernet link segment with the motivation being combined several physical layer communication capabilities together to provide more robust design which allow circuit 100 to support communication with a wider variety of equipment over communication line 130 (col. 5 lines 3-7).

For claim 20, Joergensen discloses method for increasing performance on a dedicated multi-speed Ethernet link segment, comprising:

a switch (figure 1, reference 30, col. 2 lines 22-25);

a device (figure 1, reference 20, col. 2 lines 22-25); and

a network interface connector (NIC)(figure 1, reference 25) that communicates with said switch (figure 1, reference 30) and with said device (figure 1, reference 20) (col. 2 lines 28-30).

However, Joergensen do not expressly disclose a network interface connector that communicates over said first media and over said second media that is a different type of media than said first media, wherein said NIC allows autonegotiation between said switch and said device. In an analogous art, Heaton discloses a network interface

connector (figure 2, reference 100, col. 4 lines 46-50) that communicates over said first media (figure 2, col. 5 lines 34-48) and over said second media that is a different type of media than said first media (col. 5 lines 49-58), wherein said NIC (figure 2, references 150 and 160) allows autonegotiation between said switch and said device (col. 5 lines 15-33).

One skilled in the art would have recognized the network interface connector, and would have applied Heaton's communication circuit 100 in Joergensen's NIC 25. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Heaton's fast Ethernet combination chaining of auto-negotiations for multiple physical layer capability in Joergensen's method for increasing performance on a dedicated multi-speed Ethernet link segment with the motivation being combined several physical layer communication capabilities together to provide more robust design which allow circuit 100 to support communication with a wider variety of equipment over communication line 130 (col. 5 lines 3-7).

For claim 35, Joergensen discloses method for increasing performance on a dedicated multi-speed Ethernet link segment, comprising:

first means (figure 1, reference 20, col. 2 lines 22-25);

second means (figure 1, reference 30, col. 2 lines 22-25); and

a network interface means (NIC)(figure 1, reference 25) for communicating with said first means (figure 1, reference 20) and with said second means (figure 1, reference 30)(col. 2 lines 28-30).

However, Joergensen do not expressly disclose a network interface means for communicating over said first media and over said second media, and for providing autonegotiation between said first and second means. In an analogous art, Heaton discloses a network interface means (figure 2, reference 100, col. 4 lines 46-50) for communicating over said first media (figure 2, col. 5 lines 34-48) and over said second media (col. 5 lines 49-58), and for providing autonegotiation between said first and second means (col. 5 lines 15-33).

One skilled in the art would have recognized the network interface means, and would have applied Heaton's communication circuit 100 in Joergensen's NIC 25. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Heaton's fast Ethernet combination chaining of auto-negotiations for multiple physical layer capability in Joergensen's method for increasing performance on a dedicated multi-speed Ethernet link segment with the motivation being combined several physical layer communication capabilities together to provide more robust design which allow circuit 100 to support communication with a wider variety of equipment over communication line 130 (col. 5 lines 3-7).

For claim 53, Joergensen discloses method for increasing performance on a dedicated multi-speed Ethernet link segment, comprising:

a first device (figure 1, reference 20, col. 2 lines 22-25);

a second device (figure 1, reference 30, col. 2 lines 22-25); and

using a network interface means (NIC)(figure 1, reference 25) to communicate with said first device (figure 1, reference 20) and with said second device (figure 1, reference 30)(col. 2 lines 28-30).

However, Joergensen do not expressly disclose a network interface connector to communicate over said first media and over said second media, wherein said second media is a different type of media than said first media, wherein said NIC allows autonegotiation between said switch and said device. In an analogous art, Heaton discloses a network interface connector (figure 2, reference 100, col. 4 lines 46-50) to communicate over said first media (figure 2, col. 5 lines 34-48) and over said second media, wherein said second media is a different type of media than said first media (col. 5 lines 49-58), wherein said NIC (figure 2, references 150 and 160) allows autonegotiation between said first and second devices (col. 5 lines 15-33).

One skilled in the art would have recognized the network interface connector, and would have applied Heaton's communication circuit 100 in Joergensen's NIC 25. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Heaton's fast Ethernet combination chaining of auto-negotiations for multiple physical layer capability in Joergensen's method for increasing performance on a dedicated multi-speed Ethernet link segment with the motivation being combined several physical layer communication capabilities together to provide more robust design which allow circuit 100 to support communication with a wider variety of equipment over communication line 130 (col. 5 lines 3-7).

For claim 73, Joergensen discloses method for increasing performance on a dedicated multi-speed Ethernet link segment, comprising:

a first device (figure 1, reference 20, col. 2 lines 22-25);

a second device (figure 1, reference 30, col. 2 lines 22-25); and

a network interface means (NIC)(figure 1, reference 25) that communicates with said first device (figure 1, reference 20) and with said second device (figure 1, reference 30)(col. 2 lines 28-30).

However, Joergensen do not expressly disclose a network interface connector that communicates over said first media and over said second media wherein said first media is a different media than said first media, wherein said NIC provides autonegotiation between said first and second devices. In an analogous art, Heaton discloses a network interface connector (figure 2, reference 100, col. 4 lines 46-50) that communicates over said first media (figure 2, col. 5 lines 34-48) and over said second media wherein said first media is a different media than said first media (col. 5 lines 49-58), wherein said NIC (figure 2, references 150 and 160) provides autonegotiation between said first and second devices (col. 5 lines 15-33).

One skilled in the art would have recognized the network interface connector, and would have applied Heaton's communication circuit 100 in Joergensen's NIC 25. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Heaton's fast Ethernet combination chaining of auto-negotiations for multiple physical layer capability in Joergensen's method for increasing performance on a dedicated multi-speed Ethernet link segment with the motivation being combined

several physical layer communication capabilities together to provide more robust design which allow circuit 100 to support communication with a wider variety of equipment over communication line 130 (col. 5 lines 3-7).

For claim 92, Joergensen discloses method for increasing performance on a dedicated multi-speed Ethernet link segment, comprising:

a first device (figure 1, reference 20, col. 2 lines 22-25);

a second device (figure 1, reference 30, col. 2 lines 22-25); and

using a network interface means (NIC)(figure 1, reference 25) to communicate with said first device (figure 1, reference 20) and with said second device (figure 1, reference 30)(col. 2 lines 28-30).

However, Joergensen do not expressly disclose a network interface connector that communicates over said first media and over said second media, wherein said second media is a different type of media than said first media, wherein said NIC allows autonegotiation between said first and second devices. In an analogous art, Heaton discloses a network interface connector (figure 2, reference 100, col. 4 lines 46-50) that communicates over said first media (figure 2, col. 5 lines 34-48) and over said second media, wherein said second media is a different type of media than said first media (col. 5 lines 49-58), wherein said NIC (figure 2, references 150 and 160) allows autonegotiation between said first and second devices (col. 5 lines 15-33).

One skilled in the art would have recognized the network interface connector, and would have applied Heaton's communication circuit 100 in Joergensen's NIC 25. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention, to use Heaton's fast Ethernet combination chaining of auto-negotiations for multiple physical layer capability in Joergensen's method for increasing performance on a dedicated multi-speed Ethernet link segment with the motivation being combined several physical layer communication capabilities together to provide more robust design which allow circuit 100 to support communication with a wider variety of equipment over communication line 130 (col. 5 lines 3-7).

For claim 112, Joergensen discloses method for increasing performance on a dedicated multi-speed Ethernet link segment, comprising:

first means (figure 1, reference 20, col. 2 lines 22-25);

second means (figure 1, reference 30, col. 2 lines 22-25); and

a network interface means (NIC)(figure 1, reference 25) for communicating with said first means (figure 1, reference 20) and with said second means (figure 1, reference 30)(col. 2 lines 28-30).

However, Joergensen do not expressly disclose a network interface means for communicating over said first media and over said second media, wherein said first media is a different media than said second media, and for providing autonegotiation between said first and second means. In an analogous art, Heaton discloses a network interface means (figure 2, reference 100, col. 4 lines 46-50) for communicating over said first media (figure 2, col. 5 lines 34-48) and over said second media, wherein said first media is a different media than said second media (col. 5 lines 49-58), and for providing autonegotiation between said first and second means (col. 5 lines 15-33).

One skilled in the art would have recognized the network interface connector, and would have applied Heaton's communication circuit 100 in Joergensen's NIC 25. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Heaton's fast Ethernet combination chaining of auto-negotiations for multiple physical layer capability in Joergensen's method for increasing performance on a dedicated multi-speed Ethernet link segment with the motivation being combined several physical layer communication capabilities together to provide more robust design which allow circuit 100 to support communication with a wider variety of equipment over communication line 130 (col. 5 lines 3-7).

For claim 131, Joergensen discloses method for increasing performance on a dedicated multi-speed Ethernet link segment, comprising:

a switch (figure 1, reference 30, col. 2 lines 22-25);

a device (figure 1, reference 20, col. 2 lines 22-25); and

using a network interface means (NIC)(figure 1, reference 25) to communicate with said switch (figure 1, reference 30) and with said device (figure 1, reference 20)(col. 2 lines 28-30).

However, Joergensen do not expressly disclose a network interface means for communicating over said first media and over said second media, wherein said second media is a different type of media than said first media, and wherein said NIC allows autonegotiation between said switch and said device. In an analogous art, Heaton discloses a network interface means (figure 2, reference 100, col. 4 lines 46-50) to communicate over said first media (figure 2, col. 5 lines 34-48) and over said second

media, wherein said second media is a different type of media than said first media (col. 5 lines 49-58), and wherein said NIC allows autonegotiation between said switch and said device (col. 5 lines 15-33).

One skilled in the art would have recognized the network interface connector, and would have applied Heaton's communication circuit 100 in Joergensen's NIC 25. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Heaton's fast Ethernet combination chaining of auto-negotiations for multiple physical layer capability in Joergensen's method for increasing performance on a dedicated multi-speed Ethernet link segment with the motivation being combined several physical layer communication capabilities together to provide more robust design which allow circuit 100 to support communication with a wider variety of equipment over communication line 130 (col. 5 lines 3-7).

For claim 151, Joergensen discloses method for increasing performance on a dedicated multi-speed Ethernet link segment, comprising:

a switch (figure 1, reference 30, col. 2 lines 22-25);

a device (figure 1, reference 20, col. 2 lines 22-25); and

using a network interface means (NIC)(figure 1, reference 25) to communicate with said switch (figure 1, reference 30) and with said device (figure 1, reference 20)(col. 2 lines 28-30).

However, Joergensen do not expressly disclose a network interface means to communicate over said first media and over said second media, wherein said second media is a different type of media than said first media, and wherein said NIC allows

autonegotiation between said switch and said device. In an analogous art, Heaton discloses a network interface means (figure 2, reference 100, col. 4 lines 46-50) to communicate over said first media (figure 2, col. 5 lines 34-48) and over said second media, wherein said second media is a different type of media than said first media (col. 5 lines 49-58), and wherein said NIC allows autonegotiation between said switch and said device (col. 5 lines 15-33).

One skilled in the art would have recognized the network interface connector, and would have applied Heaton's communication circuit 100 in Joergensen's NIC 25. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Heaton's fast Ethernet combination chaining of auto-negotiations for multiple physical layer capability in Joergensen's method for increasing performance on a dedicated multi-speed Ethernet link segment with the motivation being combined several physical layer communication capabilities together to provide more robust design which allow circuit 100 to support communication with a wider variety of equipment over communication line 130 (col. 5 lines 3-7).

3. Claims 2-12, 21-27, 36-45, 54-64, 74-84, 93-103, 113-123, 132-142, and 152-162 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joergensen (US 6,529,957) in view of Heaton (US 5,922,052) further in view of Booth et al. (US 6,516,352).

For claim 2, Joergensen in view of Heaton does not expressly disclose wherein said first device includes a first NIC interface including a transmitter and a receiver. In an analogous art, Booth et al. disclose wherein said first device includes a first NIC

interface including a transmitter and a receiver (figures 8A-B, references 540A and 540B, col. 13 lines 28-45).

Booth et al. disclose wherein said first media includes 1000BASE-LX media (col. 5 line 2 as set forth in claim 3), wherein said first media includes 1000BASE-SX media (col. 4 line 67 as set forth in claim 4), wherein said first media includes 1000BASE-X media (col. 5 line12 as set forth in claim 5), wherein said second media includes 1000BASE-T media (col. 5 line 23 as set forth in claim 6), wherein said NIC (link switch means) includes a second NIC interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15 lines 21-22 as set forth in claim 7), wherein said NIC (link switch means) includes a first copper interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15 lines 21-22 as set forth in claim 8), wherein said second device (figure 5, reference 440) includes a second copper interface with a transmitter and a receiver (col. 15 lines 35-37 as set forth in claim 9), wherein said transmitter of said first MC interface communicates with said receiver of said second NIC interface and said receiver of said first NIC interface communicates with said transmitter of said second NIC interface (figure 7, references 540A-B, col. 15 lines 28-51 as set forth in claim 10), wherein said transmitter of said first copper interface communicates with said receiver of said second copper interface and said receiver of said first copper interface communicates with said transmitter of said second copper interface (figure 7, references 542A-B, col. 15 lines 28-56 as set forth in claim 11), wherein said transmitters of said first and second NIC interfaces transmit a first configuration ordered set (col. 16 lines 35-37 as set forth in claim 12), wherein said first

media includes 1000BASE-LX media (col. 5 line 2 as set forth in claim 21), wherein said first media includes 1000BASE-SX media (col. 4 line 67 as set forth in claim 22), wherein said first media includes 1000BASE-X media (col. 5 line12 as set forth in claim 23), wherein said switch includes a first NIC interface with a transmitter and a receiver (figures 8A-B, references 540A and 540B, col. 13 lines 28-45), said NIC includes a second NIC interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15 lines 21-22), and a first copper interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15 lines 21-22), and said device includes a second copper interface with a transmitter and a receiver (col. 15 lines 35-37 as set forth in claim 24), wherein said transmitter of said first NIC interface communicates with said receiver of said second MC interface and said receiver of said first NIC interface communicates with said transmitter of said second NIC interface (figure 7, references 540A-B, col. 15 lines 28-51 as et forth in claim 25), wherein said transmitter of said first copper interface communicates with said receiver of said second copper interface and said receiver of said first copper interface communicates with said transmitter of said second copper interface (figure 7, references 542A-B, col. 15 lines 28-56 as set forth in claim 26), wherein said transmitters of said first and second NIC interfaces transmit a first configuration ordered set (col. 16 lines 35-37 as set forth in claim 27), wherein said first means includes a first network interfacing means including a transmitter and a receiver (figures 8A-B, references 540A and 540B, col. 13 lines 28-45 as set forth in claim 36), wherein said first media includes 1000BASE-LX media (col. 5 line 2 as set forth in claim 37), wherein said first media includes 1000BASE-SX media (col. 4 line 67

as set forth in claim 38), wherein said first media includes 1000BASE-X media (col. 5 line12 as set forth in claim 39), wherein said second media includes 1000BASE-T media (col. 5 line 23 as set forth in claim 40), wherein said network interfacing means includes:

a second network interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15 lines 21-22); and

a first copper interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15 lines 21-22 as set forth in claim 41), wherein said second means includes a second copper interface with a transmitter and a receiver (col. 15 lines 35-37 as set forth in claim 42), wherein said transmitter of said first network interface communicates with said receiver of said second network interface and said receiver of said first network interface communicates with said transmitter of said second network interface (figure 7, references 540A-B, col. 15 lines 28-51 as set forth in claim 43), wherein said transmitter of said first copper interface communicates with said receiver of said second copper interface and said receiver of said first copper interface communicates with said transmitter of said second copper interface (figure 7, references 542A-B, col. 15 lines 28-56 as set forth in claim 44), wherein said transmitters of said first and second network interfaces transmit a first configuration ordered set (col. 16 lines 35-37 as set forth in claim 45), providing a first NIC interface including a transmitter and a receiver in said first device (figures 8A-B, references 540A and 540B, col. 13 lines 28-45 as set forth in claim 54), wherein said first media includes 1000BASE-LX media (col. 5 line 2 as set forth in claim 55), wherein said first media

includes 1000BASE-SX media (col. 4 line 67 as set forth in claim 56), wherein said first media includes 1000BASE-X media (col. 5 line12 as set forth in claim 57), wherein said second media includes 1000BASE-T media (col. 5 line 23 as set forth in claim 58), providing a second NIC interface with a transmitter and a receiver in said NIC (figure 8A-B, references 610 and 612, col. 15 lines 21-22 as set forth in claim 59), providing a first copper interface with a transmitter and a receiver in said NIC (figure 8A-B, references 610 and 612, col. 15 lines 21-22 as set forth in claim 60), providing a second copper interface with a transmitter and a receiver in said second device (col. 15 lines 35-37 as set forth in claim 61), establishing communications between said transmitter of said first NIC interface and said receiver of said second NIC interface and between said receiver of said first NIC interface and said transmitter of said second NIC interface (figure 7, references 540A-B, col. 15 lines 28-51 as set forth in claim 62), establishing communications between said transmitter of said first copper interface and said receiver of said second copper interface and between said receiver of said first copper interface and said transmitter of said second copper interface (figure 7, references 542A-B, col. 15 lines 28-56 as set forth in claim 63), transmitting a first configuration ordered set using said transmitters of said first and second NIC interfaces (col. 16 lines 35-37 as set forth in claim 64), wherein said first device includes a first NIC interface including a transmitter and a receiver (figures 8A-B, references 540A and 540B, col. 13 lines 28-45 as set forth in claim 74), wherein said first media includes 1000BASE-LX media (col. 5 line 2 as set forth in claim 75), wherein said first media includes 1000BASE-SX media (col. 4 line 67 as set forth in claim 76), wherein said first media includes 1000BASE-X

media (col. 5 line12 as set forth in claim 77), wherein said second media includes 1000BASE-T media (col. 5 line 23 as set forth in claim 78), wherein said NIC (link switch means) includes a second NIC interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15 lines 21-22 as set forth in claim 79), wherein said NIC (link switch means) includes a first copper interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15 lines 21-22 as set forth in claim 80), wherein said second device (figure 5, reference 440) includes a second copper interface with a transmitter and a receiver (col. 15 lines 35-37 as set forth in claim 81), wherein said transmitter of said first MC interface communicates with said receiver of said second NIC interface and said receiver of said first NIC interface communicates with said transmitter of said second NIC interface (figure 7, references 540A-B, col. 15 lines 28-51 as set forth in claim 82), wherein said transmitter of said first copper interface communicates with said receiver of said second copper interface and said receiver of said first copper interface communicates with said transmitter of said second copper interface (figure 7, references 542A-B, col. 15 lines 28-56 as set forth in claim 83), wherein said transmitters of said first and second NIC interfaces transmit a first configuration ordered set (col. 16 lines 35-37 as set forth in claim 84), providing a first NIC interface including a transmitter and a receiver in said first device (figures 8A-B, references 540A and 540B, col. 13 lines 28-45 as set forth in claim 93), wherein said first media includes 1000BASE-LX media (col. 5 line 2 as set forth in claim 94), wherein said first media includes 1000BASE-SX media (col. 4 line 67 as set forth in claim 95), wherein said first media includes 1000BASE-X media (col. 5 line12 as set forth in claim

96), wherein said second media includes 1000BASE-T media (col. 5 line 23 as set forth in claim 97), providing a second NIC interface with a transmitter and a receiver in said NIC (figure 8A-B, references 610 and 612, col. 15 lines 21-22 as set forth in claim 98), providing a first copper interface with a transmitter and a receiver in said NIC (figure 8A-B, references 610 and 612, col. 15 lines 21-22 as set forth in claim 99), providing a second copper interface with a transmitter and a receiver in said second device (col. 15 lines 35-37 as set forth in claim 100), establishing communications between said transmitter of said first NIC interface and said receiver of said second NIC interface and between said receiver of said first NIC interface and said transmitter of said second NIC interface (figure 7, references 540A-B, col. 15 lines 28-51 as set forth in claim 101), establishing communications between said transmitter of said first copper interface and said receiver of said second copper interface and between said receiver of said first copper interface and said transmitter of said second copper interface (figure 7, references 542A-B, col. 15 lines 28-56 as set forth in claim 102), transmitting a first configuration ordered set using said transmitters of said first and second NIC interfaces (col. 16 lines 35-37 as set forth in claim 103), wherein said first means includes a first network interfacing means including a transmitter and a receiver (figures 8A-B, references 540A and 540B, col. 13 lines 28-45 as set forth in claim 113), wherein said first media includes 1000BASE-LX media (col. 5 line 2 as set forth in claim 114), wherein said first media includes 1000BASE-SX media (col. 4 line 67 as set forth in claim 115), wherein said first media includes 1000BASE-X media (col. 5 line12 as set forth in claim 116), wherein said second media includes 1000BASE-T media (col. 5 line

23 as set forth in claim 117), wherein said network interface means includes a second network interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15 lines 21-22 as set forth in claim 118), wherein said network interface means includes a first copper interface with a transmitter and a receiver (figure 8A-B, references 610 and 612, col. 15 lines 21-22 as set forth in claim 119), wherein said second means includes a second copper interface with a transmitter and a receiver (col. 15 lines 35-37 as set forth in claim 120), wherein said transmitter of said first network interface communicates with said receiver of said second network interface and said receiver of said first network interface communicates with said transmitter of said second network interface (figure 7, references 540A-B, col. 15 lines 28-51 as set forth in claim 121), wherein said transmitter of said first copper interface communicates with said receiver of said second copper interface and said receiver of said first copper interface communicates with said transmitter of said second copper interface (figure 7, references 542A-B, col. 15 lines 28-56 as set forth in claim 122), wherein said transmitters of said first and second network interfaces transmit a first configuration ordered set (col. 16 lines 35-37 as set forth in claim 123), providing a first NIC interface including a transmitter and a receiver in said switch (figures 8A-B, references 540A and 540B, col. 13 lines 28-45 as set forth in claim 132), wherein said first media includes 1000BASE-LX media (col. 5 line 2 as set forth in claim 133), wherein said first media includes 1000BASE-SX media (col. 4 line 67 as set forth in claim 134), wherein said first media includes 1000BASE-X media (col. 5 line12 as set forth in claim 135), wherein said second media includes 1000BASE-T media (col. 5 line 23 as set forth in claim

136), providing a second NIC interface with a transmitter and a receiver in said NIC (figure 8A-B, references 610 and 612, col. 15 lines 21-22 as set forth in claim 137), providing a first copper interface with a transmitter and a receiver in said NIC (figure 8A-B, references 610 and 612, col. 15 lines 21-22 as set forth in claim 138), providing a second copper interface with a transmitter and a receiver in said device (col. 15 lines 35-37 as set) forth in claim 139), establishing communications between said transmitter of said first NIC interface and said receiver of said second NIC interface and between said receiver of said first NIC interface and said transmitter of said second NIC interface (figure 7, references 540A-B, col. 15 lines 28-51 as set forth in claim 140), establishing communications between said transmitter of said first copper interface and said receiver of said second copper interface and between said receiver of said first copper interface and said transmitter of said second copper interface (figure 7, references 542A-B, col. 15 lines 28-56 as set forth in claim 141), transmitting a first configuration ordered set using said transmitters of said first and second NIC interfaces (col. 16 lines 35-37 as set forth in claim 142), providing a first NIC interface including a transmitter and a receiver in said switch (figures 8A-B, references 540A and 540B, col. 13 lines 28-45 as set forth in claim 152), wherein said first media includes 1000BASE-LX media (col. 5 line 2 as set forth in claim 153), wherein said first media includes 1000BASE-SX media (col. 4 line 67 as set forth in claim 154), wherein said first media includes 1000BASE-X media (col. 5 line12 as set forth in claim 155), wherein said second media includes 1000BASE-T media (col. 5 line 23 as set forth in claim 156), providing a second NIC interface with a transmitter and a receiver in said NIC (figure 8A-B, references 610 and 612, col. 15

lines 21-22 as set forth in claim 157), providing a first copper interface with a transmitter and a receiver in said NIC (figure 8A-B, references 610 and 612, col. 15 lines 21-22 as set forth in claim 158), providing a second copper interface with a transmitter and a receiver in said device (col. 15 lines 35-37 as set forth in claim 159), establishing communications between said transmitter of said first NIC interface and said receiver of said second NIC interface and between said receiver of said first NIC interface and said transmitter of said second NIC interface (figure 7, references 540A-B, col. 15 lines 28-51 as set forth in claim 160), establishing communications between said transmitter of said first copper interface and said receiver of said second copper interface and between said receiver of said first copper interface and said transmitter of said second copper interface (figure 7, references 542A-B, col. 15 lines 28-56 as set forth in claim 161), and transmitting a first configuration ordered set using said transmitters of said first and second NIC interfaces (col. 16 lines 35-37 as set forth in claim 162).

One skilled in the art would have recognized the wherein said first device includes a first NIC interface including a transmitter and a receiver, and would have applied Booth et al.'s NIC in Joergensen's interface card. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Booth et al.'s network interface system and method for dynamically switching between different physical layer devices in Joergensen's method for increasing performance on a dedicated multi-speed Ethernet link segment with the motivation being to provide transceiver (col. 13 lines 28-45).

Allowable Subject Matter

4. Claims 13-19, 28-34, 46-52, 65-72, 85-91, 104-11, 124-130, 143-150 and 163-170 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments with respect to claims 1-170 have been considered but are moot in view of the new ground(s) of rejection.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan D. Nguyen whose telephone number is 571-272-3153. The examiner can normally be reached on M-F (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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